

# Call For Paper

**2023 IEEE International Conference on Bioinformatics and Biomedicine (IEEE BIBM 2023) December 5-8, 2023, Istanbul, Turkey**

<https://bidma.cpsc.ucalgary.ca/IEEE-BIBM-2023/>

The IEEE International Conference on Bioinformatics and Biomedicine (BIBM) has established itself as the premier research conference in bioinformatics and biomedicine. IEEE BIBM 2023 provides a leading forum for disseminating the latest research in bioinformatics and health informatics. It brings together academic and industrial scientists from computer science, biology, chemistry, medicine, mathematics and statistics.

We solicit high-quality original research papers (including significant work-in-progress) in any aspect of bioinformatics, genomics, and biomedicine. New computational techniques and methods and their application in life science and medical domains are especially encouraged. Relevant topics include but are not limited to:

- 1. Bioinformatics and Computational Biology of Molecular Structure, Function and Evolution**
  - 1.a. Evolution, Phylogeny, Comparative Genomics
  - 1.b. Protein/RNA Structure, Function and Interactions
  - 1.c. 3D genome
- 2. Computational Systems Biology**
  - 2.a. Pathway Analysis
  - 2.b. Biological Network Analysis
  - 2.c. Interactomics
  - 2.d. Gene Expression and Regulation
  - 2.e. Post-translational Modifications
  - 2.f. Alternative Splicing
  - 2.g. Non-coding RNA Analysis
- 3. Next Generation Sequencing and High-throughput Methods**
  - 3.a. Next-Gen Sequencing
  - 3.b. Microarray Data Analysis
  - 3.c. SNPs and Haplotype Analysis, GWAS, Personalized Genomics
  - 3.d. Transcriptomics
  - 3.e. Metabolomics
  - 3.f. Proteomics
  - 3.g. Epigenomics
- 4. Cheminformatics and pharmacogenomics**
  - 4.a. Cheminformatics and Computer-Aided Drug Design
  - 4.b. Molecular Docking
  - 4.c. Molecular Modeling
  - 4.d. Pharmacogenomics
- 5. Cross-Cutting Computational Methods and Bioinformatics of Disease**
  - 5.a. Data Mining, Machine Learning, and Artificial Intelligence

- 5.b. Big Data Analytics
- 5.c. High Performance Computing
- 5.d. Information Retrieval, Ontologies, Natural Language Processing, and Text Mining
- 5.e. Data Visualization
- 5.f. Computational Modeling and Data Integration
- 5.g. Precision Medicine
- 5.h. Genome-Phenome Analysis
- 5.i. Biomarker Discovery
- 5.j. Pathogen bioinformatics

## **6. Biomedical and Health Informatics**

- 6.a. Data Mining, Machine Learning, and Artificial Intelligence
- 6.b. Big Data Analytics
- 6.c. Information Retrieval, Ontologies, Natural Language Processing, and Text Mining
- 6.d. Biomedical Image Analysis
- 6.e. Biomedical Signal Analysis
- 6.f. Healthcare Knowledge Representation & Reasoning
- 6.g. Data Visualization
- 6.h. Data Interoperability and Health Information Exchange
- 6.i. Human-computer Interaction and Human Factors
- 6.j. Clinical and Health Information Systems
- 6.k. Consumer Informatics and Personal Health Records
- 6.l. Electronic Medical/Health Records and Standards
- 6.m. Mobile Health
- 6.n. Clinical Decision Support

## **Journal special issues**

IEEE BIBM has a tradition to publish selected papers as special issues in highly respected journals. We will publish the special issues publications with many journals:

- IEEE Transactions on NanoBioscience
- IEEE/ACM Transactions on Bioinformatics and Computational Biology
- International Journal of Data Mining and Bioinformatics
- Methods
- BMC related journals
- Mathematical Biosciences and Engineering journal

## **Student Travel Award**

BIBM 2023 will offer as many student travel awards to student authors as possible based on the sponsorship fees (including post-doc).

## **Paper Submission**

Please submit a full-length paper (up to **8 page IEEE 2-column format**) through the online submission system (you can download the format instruction here ([http://www.ieee.org/conferences\\_events/conferences/publishing/templates.html](http://www.ieee.org/conferences_events/conferences/publishing/templates.html))).

Electronic submissions (in PDF or Postscript format) are required. Selected participants will be asked to submit their revised papers in a format to be specified at the time of acceptance.

**Online Submission: <https://wi-lab.com/cyberchair/2023/bibm23/index.php>**

### **Important Dates**

- Electronic submission of full papers: Aug, 20, 2023
- Notification of paper acceptance: Oct 21, 2023
- Camera-ready of accepted papers: Nov 12, 2023
- Conference: Dec. 5-8, 2023